

Montana Department of Natural Resources and Conservation  
Water Resources Division  
Water Rights Bureau

**ENVIRONMENTAL ASSESSMENT**  
**For Routine Actions with Limited Environmental Impact**

**Part I. Proposed Action Description**

1. Applicant/Contact name and address: K & J Development, Inc.  
843 Peppergrass  
Corvallis, MT 59828
2. Type of action: Application To Change A Water Right No. 76H 30030585
3. Water source name: Bitterroot River
4. Location affected by project: Sections 19,20, 29, 30, 31 & 32, T7N, R20W, Ravalli County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

K & J Development, Inc. submitted an application for a beneficial water use permit to DNRC. The applicant proposes to divert 20 gpm up to 18.8 acre-feet per year from two groundwater wells for multiple domestic and lawn and garden uses. Multiple domestic water use will occur in the 29 lot Centennial Subdivision Phase 2. The proposed new use of groundwater for multiple domestic and lawn and garden purposes will result in a net depletion of 6.69 acre-feet of water per year from the Bitterroot River. The Bitterroot River basin is closed to new appropriations of surface water, and as a result, the applicant is required to mitigate impacts to surface water from groundwater pumping.

The applicant proposes to change a portion of their historic Bitterroot River water right from irrigation to mitigation, and let their irrigation water be diverted into Willow Creek to flow downstream to the Bitterroot River. The applicant will no longer irrigate 6.7 acres using this water right, and use the water historically consumed on that 6.7 acres for mitigation. The amount of water being changed to mitigation is 10 acre-feet, or 150% of the calculated stream depletion. Water will be turned out of the Republican ditch and measured at the point where the Republican ditch crosses Willow Creek.

The use of surface water to offset stream depletion resulting from groundwater pumping will provide the benefit of domestic and lawn and garden irrigation water for the residences of Phase 2 Centennial Subdivision. Domestic, lawn and garden irrigation and mitigation uses are considered beneficial by the State of Montana. The volume of water requested is reasonable, and does not constitute a waste of water.

The DNRC shall issue an Authorization to Change a Water Right to the applicant if the criteria in 85-2-402 MCA are met

6. Agencies consulted during preparation of the Environmental Assessment:  
(include agencies with overlapping jurisdiction)

Montana Historical Society  
Montana Natural Heritage Program  
Bitterroot Valley Soil Survey

Cultural Resource File Search  
Species of Concern  
Soil data

## **Part II. Environmental Review**

### **1. Environmental Impact Checklist:**

<b>PHYSICAL ENVIRONMENT</b>
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#### **WATER QUANTITY, QUALITY AND DISTRIBUTION**

**Water quantity** - *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

The 17 mile reach of the Bitterroot River between Corvallis and Stevensville is listed on the 2005 FWP Impaired Stream List as chronically dewatered. The proposed change in water use will not worsen the already dewatered condition. The purpose of the project is to increase the amount of water flowing in this reach by retiring a Bitterroot River water right historically used for irrigation. By leaving the irrigation water in the stream, the applicant will offset 6.69 acre-feet of depletion caused by pumping of the applicant's groundwater well.

*Determination:* No impact.

**Water quality** - *Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

The Bitterroot River is listed on the DEQ webpage as water quality impaired. The sources of water quality impairment include low flow alterations, nitrate/nitrite and phosphorus levels, sedimentation/siltation and water temperature. The primary source of these pollutants is agricultural practices. The proposed project will not worsen water quality in the Bitterroot River. As a result of the proposed change in water use, the applicant will reduce their irrigated acreage, and return the water historically consumed by a portion of their irrigated acreage to the river to increase flows.

*Determination:* No impact.

**Groundwater** - *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

The subdivisions production wells were both pump tested in May, 2005, and maintained consistent yields of 102 and 105 gpm for the duration of the test. K & J Development, Inc. is applying for a flow rate of 20 gpm. Impacts to the groundwater aquifer were projected out for the entire 365-day period of appropriation. The results of the applicant's groundwater modeling indicate that after pumping continuously for 365 days the groundwater aquifer would be drawn down no greater than 0.45 feet at any location outside the applicant's property boundary. Groundwater drawdown was projected out to a level of 0.01 feet. Near the well, drawdown will be approximately 0.45 feet. Drawdown decreases the further you travel from the well, with 0.01 feet of drawdown occurring 1.3 miles away from the production wells. This amount of drawdown, by itself, is not great enough to impact other well users in the project vicinity. No sources of groundwater contamination were identified. The source of groundwater is hydraulically connected to surface water, including the Bitterroot River. The applicant estimates an annual depletion of 6.69 acre-feet, which equals an average depletion rate of 4.1 gpm. This depletion rate will not have a measurable impact on the Bitterroot River. However, the applicant is mitigating this depletion so there is no impact to surface water flowing in the Bitterroot River.

*Determination:* No impact.

**DIVERSION WORKS** - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

The applicant will continue to divert their Bitterroot River water right through the Republican ditch. At the point where the Republican ditch crosses Willow Creek, the applicant will turn out and measure water into Willow Creek at an existing headgate off of the Republican ditch. Willow Creek will then be used as a natural carrier to convey the mitigation water to the Bitterroot River.

*Determination:* No impact.

#### **UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES**

**Endangered and threatened species** - *Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

The Montana Natural Heritage Program was contacted to determine if there are any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern", that could be impacted by the proposed project.

The following plant and animal species within Township 07 North, Range 20 West;

#### Fringed Myotis and Bull Trout

These animal species are found within the same Township and Range as the proposed project. None of these species were identified as being located at the proposed project site. Information on habitat preference and forage for fringed myotis in Montana is scarce. They are known to roost in abandoned buildings, cliffs, caves, and old tree snags. They feed primarily on insects. Modification of vegetation can cause a decrease in available forage (insects). The proposed project site was previously pasture ground, which most likely provided no cover for roosting. It is not known how conversion of pasture to subdivision will affect availability forage to existing populations within Township 7 North, Range 20 West.

Pump test data indicates that the proposed use of groundwater will not cause a measurable effect in the amount of surface water flowing in Willow Creek or the Bitterroot River. Although there is no measurable impact from pumping the applicant's well, the applicant proposes to retire an existing irrigation water right and use that water to offset the stream depletion caused by the applicant's groundwater use. Since the project will not adversely affect streamflows, Bull Trout should not be impacted.

*Determination: No impact.*

**Wetlands** - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

The project does not involve any wetlands.

*Determination: No impact.*

**Ponds** - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

The project does not involve any ponds.

*Determination: No impact.*

**GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE** - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Water diverted for mitigation will remain in the Republican ditch and then be turned out into Willow Creek and conveyed to the Bitterroot River. The applicant does not propose to apply water to soils for irrigation or any other beneficial use.

*Determination: No impact.*

**VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS** - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

The proposed change in water use from irrigation to mitigation will require no construction activities or ground disturbance that could affect existing vegetation. The Montana Natural Heritage Program did not identify any plant species of special concern at or near the proposed subdivision site. The project is located entirely on private property, and the applicants will be responsible for controlling noxious weeds.

*Determination:* No impact.

**AIR QUALITY** - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Adverse air quality impacts from increased air pollutants are not expected as a result of this project. The water will be diverted using existing headgates. No air pollutants were identified as resulting from the applicant's proposed use of surface water for mitigation.

*Determination:* No impact.

**HISTORICAL AND ARCHEOLOGICAL SITES** - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

The Montana Historical Society indicates no historical or archaeological sites are inventoried in the area. A cultural resource inventory was recommended by MHS, however, since the property is privately owned, it is up to the landowner to report any cultural resources encountered during construction.

*Determination:* No impact.

**DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY** - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

All impacts to land, water, and energy have been identified and no further impacts are anticipated.

*Determination:* No impact.

## **HUMAN ENVIRONMENT**

**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

The project is located in an area with no locally adopted environmental plans.

*Determination:* No impact.

**ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES** - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

The proposed project will not inhibit, alter or impair access to the present recreational opportunities in the area. The project is not expected to create any significant pollution, noise, or traffic congestion in the area that may alter the quality of recreational opportunities in the valley.

*Determination:* No impact.

**HUMAN HEALTH** - *Assess whether the proposed project impacts on human health.*

The project does not pose a significant risk to the human health

*Determination:* No impact.

**PRIVATE PROPERTY** - *Assess whether there are any government regulatory impacts on private property rights.*

Yes\_\_\_ No **XX** If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

*Determination:* No impact.

**OTHER HUMAN ENVIRONMENTAL ISSUES** - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

*Impacts on:*

- (a) Cultural uniqueness and diversity? None identified.
- (b) Local and state tax base and tax revenues? None identified.
- (c) Existing land uses? None identified.
- (d) Quantity and distribution of employment? None identified.
- (e) Distribution and density of population and housing? None identified.
- (f) Demands for government services? None identified.
- (g) Industrial and commercial activity? None identified.
- (h) Utilities? None identified.

(i) Transportation? None identified.

(j) Safety? None identified.

(k) Other appropriate social and economic circumstances? None identified.

**2. *Secondary and cumulative impacts on the physical environment and human population:***

Secondary Impacts None identified.

Cumulative Impacts None identified.

**3. *Describe any mitigation/stipulation measures:***

No reasonable alternatives were identified in the EA.

**4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:***

**PART III. Conclusion**

**1. *Preferred Alternative*** None identified.

**2 *Comments and Responses***

**3. *Finding:***

Yes\_\_\_ No **XX** Based on the significance criteria evaluated in this EA, is an EIS required?

*If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:*

AN EA IS THE APPROPRIATE LEVEL OF ANALYSIS FOR THE PROPOSED ACTION BECAUSE NO SIGNIFICANT IMPACTS WERE IDENTIFIED.

*Name of person(s) responsible for preparation of EA:*

*Name:* Jim Nave

*Title:* Water Resource Specialist

*Date:* March 4, 2008